COE 197S ME 8: Activity 2

MODIFYING AN IMAGE

1-3)

```
C:\Users\Enzo Alcantara\Documents\GitHub\ME8_Containerization_and_Docker\1-running_containers>docker run -it ubuntu:16.04 /bin/bash root@3f666fa322b3:/# ping google.com
bash: ping: command not found
root@3f666fa322b3:/# apt-get update
Get:1 http://archive.ubuntu.com/ubuntu xenial InRelease [247 kB]
Get:2 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Get:3 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [2051 kB]
Get:4 http://archive.ubuntu.com/ubuntu xenial-backports InRelease [109 kB]
Get:5 http://archive.ubuntu.com/ubuntu xenial-backports InRelease [109 kB]
Get:6 http://archive.ubuntu.com/ubuntu xenial-main amd64 Packages [1558 kB]
Get:7 http://archive.ubuntu.com/ubuntu xenial/main amd64 Packages [14.1 kB]
Get:8 http://archive.ubuntu.com/ubuntu xenial/restricted amd64 Packages [14.1 kB]
Get:9 http://security.ubuntu.com/ubuntu xenial/restricted amd64 Packages [15.9 kB]
Get:10 http://security.ubuntu.com/ubuntu xenial-security/restricted amd64 Packages [820 B]
Get:11 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages [8820 B]
Get:12 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [16.4 kB]
Get:13 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [16.4 kB]
Get:15 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [16.4 kB]
Get:16 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [16.2 kB]
Get:18 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [16.2 kB]
Get:18 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [16.2 kB]
Ge
        Fetched 19.4 MB in 60s (319 kB/s)
Reading package lists... Done
root@3f666fa322b3:/#
```

4)

```
root@3f666fa322b3:/# apt-get install iputils-ping
Reading package lists... Done
Building dependency tree

Reading state information... Done

The following additional packages will be installed:

libffi6 libgmp10 libgnutls-openss127 libgnutls30 libhogweed4 libidn11 libnettle6 libp11-kit0 libtasn1-6
   Suggested packages:
        gnutls-bin
  The following NEW packages will be installed:
        iputils-ping libffi6 libgmp10 libgnutls-openssl27 libgnutls30 libhogweed4 libidn11 libnettle6 libp11-kit0 libtasn1-6
 O upgraded, 10 newly installed, 0 to remove and 5 not upgraded.

Need to get 1307 kB of archives.

After this operation, 3781 kB of additional disk space will be used.

Do you want to continue? [Y/n] Y
 Get:1 http://archive.ubuntu.com/ubuntu xenial/main amd64 libgmp10 amd64 2:6.1.0+dfsg-2 [240 kB]
Get:1 http://archive.ubuntu.com/ubuntu xenial/main amd64 libgmp10 amd64 2:6.1.0+d+sg-2 [240 kB]
Get:2 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libnettle6 amd64 3.2-1ubuntu0.16.04.2 [93.7 kB]
Get:3 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libhogweed4 amd64 3.2-1ubuntu0.16.04.2 [136 kB]
Get:4 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libidn11 amd64 1.32-3ubuntu1.2 [46.5 kB]
Get:5 http://archive.ubuntu.com/ubuntu xenial/main amd64 libfi6 amd64 3.2.1-4 [17.8 kB]
Get:6 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libp11-kit0 amd64 0.23.2-5~ubuntu16.04.2 [107 kB]
Get:7 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libtasn1-6 amd64 4.7-3ubuntu0.16.04.3 [43.5 kB]
Get:8 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls30 amd64 3.4.10-4ubuntu1.8 [548 kB]
Get:9 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls-openss127 amd64 3.4.10-4ubuntu1.8 [21.9 kB]
Get:10 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls-openss127 amd64 3.4.10-4ubuntu1.8 [21.9 kB]
  Get:10 http://archive.ubuntu.com/ubuntu xenial/main amd64 iputils-ping amd64 3:20121221-5ubuntu2 [52.7 kB]
  Fetched 1307 kB in 5s (244 kB/s)
 debconf: delaying package configuration, since apt-utils is not installed Selecting previously unselected package libgmp10:amd64.
Selecting previously unselected package libgmp10:amd64.
(Reading database ... 4785 files and directories currently installed.)
Preparing to unpack .../libgmp10_2%3a6.1.0+dfsg-2_amd64.deb ...
Unpacking libgmp10:amd64 (2:6.1.0+dfsg-2) ...
Selecting previously unselected package libnettle6:amd64.
Preparing to unpack .../libnettle6_3.2-1ubuntu0.16.04.2_amd64.deb ...
Unpacking libnettle6:amd64 (3.2-1ubuntu0.16.04.2) ...
Selecting previously unselected package libhogweed4:amd64.
Preparing to unpack .../libhogweed4_3.2-1ubuntu0.16.04.2_amd64.deb ...
Unpacking libhogweed4:amd64 (3.2-1ubuntu0.16.04.2) ...
Selecting previously unselected package libidn11:amd64.
Preparing to unpack .../libidn11_1.32-3ubuntu1.2_amd64.deb ...
Unpacking libidn11:amd64 (1.32-3ubuntu1.2) ...
Selecting previously unselected package libff16:amd64.
Preparing to unpack .../libff16_3.2.1-4_amd64.deb ...
Unpacking libff16:amd64 (3.2.1-4) ...
Selecting previously unselected package libp11-kit0:amd64.
Preparing to unpack .../libf11-kit0_0.23.2-5~ubuntu16.04.2_amd64.deb ...
   Preparing to unpack .../libp11-kit0_0.23.2-5~ubuntu16.04.2_amd64.deb ...
 Unpacking libp11-kit0:amd64 (0.23.2-5~ubuntu16.04.2) ...
Selecting previously unselected package libtasn1-6:amd64.
Preparing to unpack .../libtasn1-6_4.7-3ubuntu0.16.04.3_amd64.deb ...
  Unpacking libtasn1-6:amd64 (4.7-3ubuntu0.16.04.3) ...
Unpacking libtashi-6:amdo4 (4.7-3ubuntu0.16.44.3) ...

Selecting previously unselected package libgnutls30:amd64.

Preparing to unpack .../libgnutls30_3.4.10-4ubuntu1.8_amd64.deb ...

Unpacking libgnutls30:amd64 (3.4.10-4ubuntu1.8) ...

Selecting previously unselected package libgnutls-openssl27:amd64.

Preparing to unpack .../libgnutls-openssl27_3.4.10-4ubuntu1.8_amd64.deb ...

Unpacking libgnutls-openssl27:amd64 (3.4.10-4ubuntu1.8) ...
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Selecting previously unselected package libgnutls-openss127:amd64.
Preparing to unpack .../libgnutls-openssl27_3.4.10-4ubuntu1.8_amd64.deb ...
Unpacking libgnutls-openssl27:amd64 (3.4.10-4ubuntu1.8) ...
Selecting previously unselected package iputils-ping.
Preparing to unpack .../iputils-ping 3%3a20121221-5ubuntu2_amd64.deb ...
Unpacking iputils-ping (3:20121221-5ubuntu2) ...
Processing triggers for libc-bin (2.23-0ubuntu11.2) ...
Setting up libgmp10:amd64 (2:6.1.0+dfsg-2) ...
Setting up libnettle6:amd64 (3.2-1ubuntu0.16.04.2) ...
Setting up libhogweed4:amd64 (3.2-1ubuntu0.16.04.2) ...
Setting up libidn11:amd64 (1.32-3ubuntu1.2) ...
Setting up libffi6:amd64 (3.2.1-4) ...
Setting up libp11-kit0:amd64 (0.23.2-5~ubuntu16.04.2) ...
Setting up libtasn1-6:amd64 (4.7-3ubuntu0.16.04.3) ...
Setting up libgnutls30:amd64 (3.4.10-4ubuntu1.8) ...
Setting up libgnutls-openssl27:amd64 (3.4.10-4ubuntu1.8) ...
Setting up iputils-ping (3:20121221-5ubuntu2) ...
Setcap is not installed, falling back to setuid
Processing triggers for libc-bin (2.23-0ubuntu11.2) ...
root@3f666fa322b3:/#
```

```
Toot@3f666fa322b3:/# ping google.com
PING google.com (142.250.204.110) 56(84) bytes of data.

64 bytes from 142.250.204.110: icmp_seq=1 ttl=37 time=76.7 ms

64 bytes from 142.250.204.110: icmp_seq=2 ttl=37 time=34.2 ms

64 bytes from 142.250.204.110: icmp_seq=3 ttl=37 time=41.5 ms

64 bytes from 142.250.204.110: icmp_seq=4 ttl=37 time=29.5 ms

64 bytes from 142.250.204.110: icmp_seq=5 ttl=37 time=34.1 ms

64 bytes from 142.250.204.110: icmp_seq=6 ttl=37 time=34.1 ms

64 bytes from 142.250.204.110: icmp_seq=6 ttl=37 time=30.4 ms

64 bytes from 142.250.204.110: icmp_seq=7 ttl=37 time=32.4 ms

^C
--- google.com ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6010ms
rtt min/avg/max/mdev = 29.595/39.876/76.766/15.487 ms

root@3f666fa322b3:/# exit

exit

C:\Users\Enzo Alcantara\Documents\GitHub\ME8_Containerization_and_Docker\1-running_containers>
```

COMMITING CHANGES

1-3)

```
C:\Users\Enzo Alcantara\Documents\GitHub\ME8_Containerization_and_Docker\1-running_containers>docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
3f666fa322b3 ubuntu:16.04 "/bin/bash" 8 minutes ago Exited (0) About a minute ago cool_pascal
```

```
PS C:\Users\Enzo Alcantara\Documents\GitHub\ME8_Containerization_and_Docker\l-running_containers> docker commit -a 'Enzo Alcantara' -m 'Added ping utility.' 3f6 ealcantara/ping sha256:fbc7b4b262ff8d99de9d99504e2f8c3le0aed2a65eb227d9ffabd9cafea22fff
PS C:\Users\Enzo Alcantara\Documents\GitHub\ME8_Containerization_and_Docker\l-running_containers> docker images
REPOSITORY 1A6 IMAGE ID CREATED SIZE
ealcantara/ping latest fbc7b4b262ff 21 seconds ago 170M8
ubuntu 16.04 9ff95a46f7eb 15 hours ago 135M8
dockerl0ltutorial latest 7b5ba9c64d1c 15 hours ago 28M8
alpine/git latest 2abeafdff5b9 3 days ago 25.1MB
docker\getting-started latest 3ba8f2ff0727 2 months ago 27.9MB
PS C:\Users\Enzo Alcantara\Documents\GitHub\ME8_Containerization_and_Docker\l-running_containers>
PS C:\Users\Enzo Alcantara\Documents\GitHub\ME8_Containerization_and_Docker\l-running_containers>
PS C:\Users\Enzo Alcantara\Documents\GitHub\ME8_Containerization_and_Docker\l-running_containers>
docker run -it --rm ealcantara/ping /bin/bash
roote447dafb8017d:/# ping google.com
(142.259.204.110) 56(84) bytes of data.
64 bytes from 142.250.204.110: icmp_seq= ttl=37 time=32.8 ms
64 bytes from 142.250.204.110: icmp_seq= ttl=3
```